Comments on DAB power increase:

The commission asks for comments on four areas of proposed regulation.
Defer consideration of Joint Parties.

Despite petitioners studies indicating minimal interference to analog FM, I find the findings overly optimistic. As has been recently demonstrated with the change in television from analog to DTV, there were over 900,000 FCC calls and based on personal experience in the Chicago market, tens of thousands of additional calls of viewer reception problems. Many of these involve the reception using an indoor antenna. There are no planning factors for indoor reception of VHF signals to consumer devices nor sufficient research into the age, design and related reception issues [placement, orientation, signal penetration] to allow a singular answer. Likewise, design of auto and portable radios has several generations of operating equipment many dating from the adoptive years of FM on the 3 meter band when the 6 meter FM band was abandoned.

The channel separation specifications based on adjacency and distance for analog FM have provided a reasonable measure of interference protection, albeit interference still exists in overlap areas, from overload of proximity of multiple high power signals and other common causes well documented.

Commission studies on white space use of UHF channels has also shown singular planning factors are not applicable due to variation in signal levels, location, orientation and other localized factors.

Therefore, until a definitive set of planning factors can be established that will prevent increased interference beyond a deminimus level that is based on more than anecdotal accounts and questionable lab studies designed to ignore many real life conditions, it is my recommendation that the FCC defer action and take a conservative approach so as to not create unnecessary interference conditions that disrupt a primary broadcast service for the sake of adopting "technology" that benefits only a few patent holders financial interests.

Item 2, experience of stations indicating a power increase is necessary.

It has been demonstrated in anecdotal comments that 'HD Radio' has limited range. Logic would clearly indicate that reception distance increases with power or antenna HAAT as reflected in the FCC propagation charts in part 73 for TV, FM commonly known as 50,50 50,10 and 50,90 charts. However, this is not a basis on which a decision can be made since it fails to consider and integrate the effects of power increase on primary analog FM service and service to adjacent channels and communities. Moreover, the same studied reasoning that created the planning factors should apply to the power level of digital FM signals. Such planning should make a reasoned expectation of indoor, mobile, portable and outdoor reception and include mechanical and electronic beam tilt to provide a

robust indoor signal level to urban areas where indoor reception is the norm, and mobile, portable reception reliable to a high degree so that the integrity of emergency and public safety information provided by all primary broadcasters is not impeded nor degraded. The importance of EAS and Homeland Security issues must be fully appreciated and appropriate actions taken to protect the public. Therefore, the desire for higher power represents simply that, a desire for economic benefit, and cannot be considered on its own merits.

Item 3. If the Commission does adopt an HD Radio power increase it should be incremental to allow time for additional real world experience to accumulate. Any such increase should be provisional. The application should include engineering documentation showing interference potential to all currently considered stations as is done for analog FM applications. At no point should the first allowed incremental increase exceed 3 dB in consideration of receiver IM, receiver IF selectivity, and mutual destructive interference from co-channel stations. The alternative would be chaos as higher power increases vs lower power increases create an undefinable situation. Stations would be permitted to build to a final proposed power level as yet to be determined, but operate at lesser power until it is clear to the Commission that the power may increase as determined at a later date. The 3 dB being an increase from 1% of analog power to 2% of analog power. A second increase to 5% of analog power is suggested after a period of 5 years to allow time for studies and engineering improvements to consumer equipment, the gradual replacement of older more interference prone consumer receivers and transmission filter and analog/digital combining technologies to eliminate power wasted in reject loads. The Commission should implement specific power efficiency standards to minimize increases in utility power demand in line with conservation efforts.

Item 4. The Commission should establish explicit procedures for interference resolution including power reductions, termination of operation, or other means of interference resolution. it should follow the "last station on" method of determining interference reduction. Thus a station increasing digital FM power that causes new interference would be solely obligated to resolve the issue to the satisfaction of the station receiving new interference or to the satisfaction of the Commission that harmful interference has been minimized. This would be similar to the method used for DTV to analog television where a minimal amount of interference would be tolerated for the sake of allowing new service. Such interference would not be allowed to penetrate a stations protected contour.

Regards,
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